

October 10, 1958

Dr. T. Gold
Harvard College Observatory
Cambridge, Mass.

Dear Professor Gold:

Thank you for your letter of September 23rd, and the most interesting reprint that accompanied it.

I am enclosing a copy of our discussion of biological objectives in space research. I am well aware of the tenuous character of some of our conclusions but nonetheless would be quite happy to hear of any explicit criticisms you may have.

I hope you will read our cautionary remarks more carefully than have some of my other correspondents. We did not feel it was up to us to make specific recommendations as to just how far microorganisms should be excluded from extra-terrestrial probes but we did feel that this was a question that should be kept in mind for some explicit decision one way or another. As you will see from some of our elementary calculations a putrifying object the size of a large dog might under some circumstances introduce a very tangible average level of surface contamination. I was rather surprised to hear that the air force had considered total sterilization of some of their rockets though if this does not seriously interfere with the organization of the program this is perhaps only an over-cautious but not necessarily an extreme reaction. We have never believed that the possibility of survival of microorganisms under the conditions of the lunar surface was anything but farfetched but farfetched as it is the theoretical implications are so vast that it ought not to be entirely ignored.

I would be very much in favor of the most vigorous policy of lunar experimentation and I was rather more afraid of the destructive effect of some of the stunts that were being proposed than of any serious and well designed experiments.

I would be rather more fanatical about the precautions that should be taken in probes to the other more nearly "habitable" planets and perhaps it is just as well to anticipate that discussion by consideration of the less perilous context of lunar research.

Yours sincerely,

Joshua Lederberg
Professor of Medical Genetics

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